

# CLAIM AMENDMENTS

## Claim Amendment Summary

### **Claims pending**

- At time of the Action: Claims 1-48.
- After this Response: Claims 1-6, 8-24, 26-41, and 43-48.

**Canceled or Withdrawn claims:** 7, 25, and 42.

**Amended claims:** 1, 2, 24, 30, 33, 36, 40, and 43.

**New claims:** none.

## Claims:

1. **(CURRENTLY AMENDED)** A method for facilitating speedy communication of packets between entities on a network, the method comprising:  
sending a delay-disable command;  
sending a set of packets from a sending entity to a receiving entity,  
wherein both sendings are performed at an application layer of a computer in accordance with an OSI model.

2. **(CURRENTLY AMENDED)** A method as recited in claim 1, wherein the set of packets ~~includes~~ consists of two packets sent back-to-back.

1           3.     **(ORIGINAL)** A method as recited in claim 1, wherein the set of  
2 packets consists of a first bandwidth-measurement packet and a second  
3 bandwidth-measurement packet, wherein the second packet is sent immediately  
4 after the first packet.

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6           4.     **(ORIGINAL)** A method as recited in claim 1, wherein the network is  
7 TCP.

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9           5.     **(ORIGINAL)** A method as recited in claim 1, wherein the delay-  
10 disable command disables the Nagle Algorithm on one or more communication  
11 devices on the network.

12  
13           6.     **(ORIGINAL)** A method as recited in claim 1, wherein the delay-  
14 disable command is TCP\_NODELAY.

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16           7.     **(CANCELED)**

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18           8.     **(ORIGINAL)** A computer-readable medium having computer-  
19 executable instructions that, when executed by a computer, performs the method  
20 as recited in claim 1.

1  
2       **9. (ORIGINAL)** A method for facilitating speedy communication of  
3 packets between entities on a network, the method comprising:

4       sending a set of packets from a sending entity to a receiving entity, wherein  
5 a transmission delay between packets in the set is intolerable;

6       immediately thereafter, sending at least one “push” packet to avert a  
7 transmission delay between packets in the set, wherein the delay is caused by  
8 packet buffering of a communication device on the network.

9  
10       **10. (ORIGINAL)** A method as recited in claim 9, wherein the set of  
11 packets includes two packets sent back-to-back.

12  
13       **11. (ORIGINAL)** A method as recited in claim 9, wherein the set of  
14 packets are bandwidth-measurement packets for measuring bandwidth between the  
15 sending entity and the receiving entity.

16  
17       **12. (ORIGINAL)** A method as recited in claim 9, wherein the  
18 communication device is a proxy server.

19  
20       **13. (ORIGINAL)** A method as recited in claim 9, wherein the network is  
21 TCP.

1           **14. (ORIGINAL)** A program module having computer-executable  
2 instructions that, when executed by a computer, performs the method as recited in  
3 claim 9 at an application layer in accordance with an OSI model.

4  
5           **15. (ORIGINAL)** A computer-readable medium having computer-  
6 executable instructions that, when executed by a computer, performs the method  
7 as recited in claim 9.

8  
9           **16. (ORIGINAL)** A method for facilitating speedy communication of  
10 packets between entities on a network, the method comprising:

11           sending a set of packets from a sending entity to a receiving entity, wherein  
12 a transmission delay between packets in the set is intolerable;

13           immediately before, sending at least one "priming" packet to avoid a  
14 transmission delay between packets in the set, wherein the delay is caused by  
15 flow-control functions of a communication device on the network.

16  
17           **17. (ORIGINAL)** A method as recited in claim 16, wherein the set of  
18 packets includes two packets sent back-to-back.

19  
20           **18. (ORIGINAL)** A method as recited in claim 16, wherein the set of  
21 packets are bandwidth-measurement packets for measuring bandwidth between the  
22 sending entity and the receiving entity.

1           **19. (ORIGINAL)** A method as recited in claim 16, wherein the network  
2 is TCP.

3  
4           **20. (ORIGINAL)** A method as recited in claim 16 further comprising  
5 establishing a TCP connection between the sending entity to the receiving entity,  
6 wherein the establishing is just before the sending of the set of packets.

7  
8           **21. (ORIGINAL)** A method as recited in claim 16, wherein the flow-  
9 control function is the Slow Start Algorithm.

10  
11           **22. (ORIGINAL)** A program module having computer-executable  
12 instructions that, when executed by a computer, performs the method as recited in  
13 claim 16 at an application layer in accordance with an OSI model.

14  
15           **23. (ORIGINAL)** A computer-readable medium having computer-  
16 executable instructions that, when executed by a computer, performs the method  
17 as recited in claim 16.

1           **24. (CURRENTLY AMENDED)** A method for facilitating bandwidth  
2 measurement between two entities on a network, the method comprising:

3           sending a delay-disable command;

4           sending a pair of bandwidth-measurement packets from a sending entity to  
5 a receiving entity;

6           receiving a bandwidth calculation based upon measurements related to just  
7 the pair of bandwidth-measurement packets and not based upon measurements  
8 using any other packets.

9  
10           **25. (CANCELED)**

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12           **26. (ORIGINAL)** A method for facilitating bandwidth measurement  
13 between two entities on a network, the method comprising:

14           sending a pair of bandwidth-measurement packets from a sending entity to  
15 a receiving entity, wherein a transmission delay between packets in the pair is  
16 intolerable;

17           immediately thereafter, sending at least one “push” packet to avert a  
18 transmission delay between packets in the pair, wherein the delay is caused by  
19 packet buffering of a communication device on the network.

20  
21           **27. (ORIGINAL)** A method as recited in claim 26 further comprising  
22 receiving a bandwidth calculation based upon measurements related to the pair of  
23 packets.

1           **28. (ORIGINAL)** A method for facilitating bandwidth measurement  
2 between two entities on a network, the method comprising:

3           sending a pair of bandwidth-measurement packets from a sending entity to  
4 a receiving entity, wherein a transmission delay between packets in the pair is  
5 intolerable;

6           immediately before, sending at least one “priming” packet to avoid a  
7 transmission delay between packets in the pair, wherein the delay is caused by  
8 flow-control functions of a communication device on the network.

9  
10           **29. (ORIGINAL)** A method as recited in claim 28 further comprising  
11 receiving a bandwidth calculation based upon measurements related to the pair of  
12 packets.  
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421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324-9256  
F: 509.323-8979  
www.leeandhayes.com

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1           30. (CURRENTLY AMENDED) A computer-readable medium having  
2 computer-executable instructions that, when executed by a computer, perform a  
3 method to facilitate speedy communication of packets between entities on a  
4 network, the method comprising:

5           sending a delay-disable command;

6           sending a set of packets from a sending entity to a receiving entity, wherein  
7 the set of packets consists of two packets sent back-to-back and wherein both  
8 sendings are performed at an application layer of the computer in accordance with  
9 an OSI model.

10  
11           31. (ORIGINAL) A computer-readable medium having computer-  
12 executable instructions that, when executed by a computer, perform a method to  
13 facilitate speedy communication of packets between entities on a network, the  
14 method comprising:

15           sending a set of packets from a sending entity to a receiving entity, wherein  
16 a transmission delay between packets in the set is intolerable;

17           immediately thereafter, sending at least one "push" packet to avert a  
18 transmission delay between packets in the set, wherein the delay is caused by  
19 packet buffering of a communication device on the network.



1           32. (ORIGINAL) A computer-readable medium having computer-  
2 executable instructions that, when executed by a computer, perform a method to  
3 facilitate speedy communication of packets between entities on a network, the  
4 method comprising:

5           sending a set of packets from a sending entity to a receiving entity, wherein  
6 a transmission delay between packets in the set is intolerable;

7           immediately before, sending at least one "priming" packet to avoid a  
8 transmission delay between packets in the set, wherein the delay is caused by  
9 flow-control functions of a communication device on the network.

10  
11           33. (CURRENTLY AMENDED) An apparatus comprising:

12           a processor;

13           a transmission-delay avoider operating at an application layer in accordance  
14 with an OSI model and executable on the processor to:

15           send a delay-disable command;

16           send a set of packets from a sending entity to a receiving entity, the  
17 set of packets consists of two packets sent back-to-back.

18  
19           34. (ORIGINAL) An apparatus comprising:

20           a processor;

21           a transmission-delay avoider executable on the processor to:

22           send a set of packets from a sending entity to a receiving entity,  
23 wherein a transmission delay between packets in the set is intolerable;

1 immediately thereafter, send at least one “push” packet to avert a  
2 transmission delay between packets in the set, wherein the delay is caused  
3 by packet buffering of a communication device on the network.  
4

5 **35. (ORIGINAL) An apparatus comprising:**

6 a processor;

7 a transmission-delay avoider executable on the processor to:

8 send a set of packets from a sending entity to a receiving entity,  
9 wherein a transmission delay between packets in the set is intolerable;

10 immediately before, send at least one “priming” packet to avoid a  
11 transmission delay between packets in the set, wherein the delay is caused  
12 by flow-control functions of a communication device on the network.  
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421 West Riverside, Suite 500  
Spokane, WA 99201  
P: 509.324-9256  
F: 509.323-8979  
www.leeandhayes.com

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1           **36. (CURRENTLY AMENDED)** A modulated data signal having data  
2 fields encoded thereon transmitted over a communications channel, ~~comprising~~  
3 consisting of:

- 4           a first field including a delay-disable command;  
5           a second field including a first bandwidth-measurement packet;  
6           a third field including a second bandwidth-measurement packet.

7  
8           **37. (ORIGINAL)** A modulated data signal having data fields encoded  
9 thereon transmitted over a communications channel, comprising:

- 10           a first field including a first bandwidth-measurement packet;  
11           a second field including a second bandwidth-measurement packet;  
12           a third field including a “push” packet facilitating minimization of  
13 transmission delay between the first and second packets, wherein the delay is  
14 caused by packet buffering of a communication device on the network.

15  
16           **38. (ORIGINAL)** A modulated data signal having data fields encoded  
17 thereon transmitted over a communications channel, comprising:

- 18           a first field including a “priming” packet;  
19           a second field including a first bandwidth-measurement packet;  
20           a third field including a second bandwidth-measurement packet;  
21           wherein the “priming” packet facilitates minimization of transmission delay  
22 between packets, wherein the delay is caused by flow-control functions of a  
23 communication device on the network.

1           39. (ORIGINAL) A method as recited in claim 1, wherein the delay-  
2       disable command is sent by the receiving entity to the sending entity.

3  
4           40. (CURRENTLY AMENDED) A method as recited in claim 24, wherein  
5       the delay-disable ~~command~~ command is sent by the receiving entity to the sending  
6       entity.

7  
8           41. (CURRENTLY AMENDED) A method for facilitating speedy  
9       communication of packets between entities on a communications network, the  
10      method comprising:

11          sending a delay-disable command to direct a disablement of a  
12          communications delay imposed by one or more communication devices on a  
13          communications network;

14          while the communications delay is disabled, sending a set of packets from a  
15          sending entity to a receiving entity, wherein the set of packets consists of two  
16          packets sent back-to-back.

17  
18          42. (CANCELED)

19  
20          43. (CURRENTLY AMENDED) A method as recited in claim 41, wherein  
21          ~~the set of packets consists of~~ the two packets include a first bandwidth-  
22          measurement packet and a second bandwidth-measurement packet, wherein the  
23          second packet is sent immediately after the first packet.

1           44.    (ORIGINAL) A method as recited in claim 41, wherein the network  
2 is TCP.

3  
4           45.    (ORIGINAL) A method as recited in claim 41, wherein the delay-  
5 disable command disables the Nagle Algorithm on one or more communication  
6 devices on the network.

7  
8           46.    (ORIGINAL) A method as recited in claim 41, wherein the delay-  
9 disable command is TCP\_NODELAY.

10  
11          47.    (ORIGINAL) A program module having computer-executable  
12 instructions that, when executed by a computer, performs the method as recited in  
13 claim 41 at an application layer in accordance with an OSI model.

14  
15          48.    (ORIGINAL) A computer-readable medium having computer-  
16 executable instructions that, when executed by a computer, performs the method  
17 as recited in claim 41.